INGESCO®
LIGHTNING SOLUTIONS

DL-EOLOS

High bandwidth lightning strike counter for wind turbines and elevated structures

DL EOLOS K15FO

High bandwidth lightning strike counter with optical fiber output. Tailored to be installed in wind turbines, communication towers and elevated structures.

Ref: 430022

Features:

- Detection of low intensity impulses starting at a minimum of 0,18kA for a wide impulse current bandwidth, including typical wind turbine impacts as described by standard IEC 61.400-24.
- Detection of strikes which are undetectable for standard counters.
- Large recording capacity (999 events).
- Permanently visible log of detected events.
- Direct adhesive fixation to the wind turbine blade, no drilling required.
- No need for batteries or external power (maintenance-free).
- Event detection without ohmic contact: down conductor remains unaffected.
- Great durability.
- IP65 Protection Level.

Technical specifications:

Current wave	front from 8µs to 2000µs
Range of intensity	from ±180A to ±200kA
Current impulse immunity of (10/350µs)	±200kA
Counting range	0 to 999 events (restarted at 000)
Temperature range	-20ºC to 60ºC
Protection grade	IP 65
Dimensions	139x44x68 mm
Weight	770g
Hole diameter	22 mm
Output	SMA connector to POF optical fiber
Data format	Proprietary

DL EOLOS FO-RCVR-3CH

Optical fiber communications receptor for DL EOLOS K15FO counters

Ref: 430023

Features:

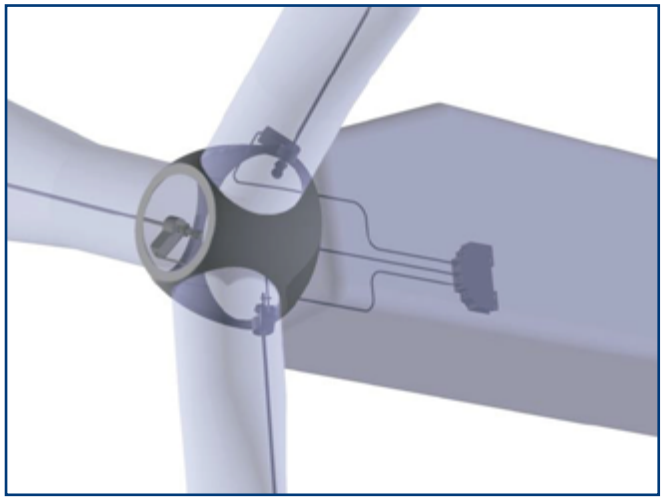
- Three isolated N.O. relay outputs with one common terminal.
- Great resistance against external electromagnetic interferences.
- Standardized power input.
- Connectors are highly resistant to vibration.
- Direct anchorage to a standard 35mm DIN Rail Channel
- Light indicator of activity and operating status.
- Operating temperature from -20ºC to 60ºC.
- Available in modules of three channels (Ref: 430023) and one channel (Ref: 430025)

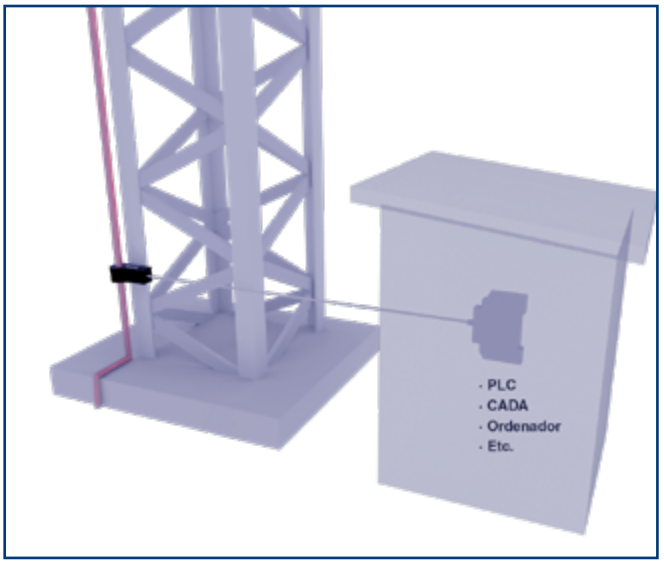
Technical specifications:

Power supply	24V
Supported counters	3 x DL EOLOS K15FO
POF optical fiber	SMA connector
Relay outputs	3
Format of output pulses	Propietary (*)
Relay switching current	0,5A
Switching voltage for each relay	200V
Maximum switching power for each relay	10W
Breakdown voltage between open relay contacts	250V
Endpoint protection	IP20
Casing material	UL94-V0 (flame retardant)

* See application note AN07118

DL EOLOS





DL EOLOS K15FO lightning counter presents a compact and robust design, specially adapted for the detection of lightning discharges in lightning protection systems of wind turbines and elevated structures. Its fiber-optic output enables the registration of lightning discharges on wind turbines and elevated structures. Its fiber-optic output enables the notification of the lightning discharges detected on a fiber-optic signal receiver.

DL EOLOS K15FO counter detects the current impulse produced by the lightning strike, which is lead to the ground through the ground conductor of the lightning protection system and registered on an electromechanical counter. At the same time, it emits the information through its fiber-optic output.

DL EOLOS K15FO counter does not need external power supply to operate, since it uses techniques to capture energy from the lightning energy current that circulates through the down conductor.

The magnetic sensor located inside the counter enables it to detect the lightning electrical current without the need of electric contact. Its operation characteristics and its robust and hermetic construction enable **DL EOLOS K15FO** counters to provide a reliable, stable and maintenance free operation.

This receiver performs a real time analysis of the signals received through the fiber optic in order to avoid the generation of false alarms. Fast signals received by a receiver input which correspond to notifications of detection of a strike are converted to slower electrical signals through the receiver's output terminals.

[See on website]

ISO 9001
ISO 14001
BUREAU VERITAS
Certification

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